

Appl. No. : 09/870,619
Filed : May 31, 2001

REMARKS

In response to the Office Action mailed June 3, 2004, Applicant respectfully requests the Examiner to reconsider the above-captioned application in view of the following comments.

Interview Summary

Applicant would initially like to thank Examiner Corrigan for the courteous telephone interview extended to Applicant's representative, Rabinder Narula, on September 15, 2004. In the interview, the rejection of independent Claims 1, 12, 19, 30, 37, 48 and 55 were discussed. In particular, Applicant disagreed with the Examiner's interpretation of the teachings of Nakamura (U.S. Patent No. 5,797,363) and Hiroaki et al. (JP 11-132016). These disagreements are restated below.

While an agreement was not reached during the interview, the Examiner indicated that Applicant's arguments "appeared to have merit" and agreed to give these arguments further consideration upon receipt of a formal written response to the outstanding Office Action.

Applicant notes that this Application has already received four Office Actions on the merits. In addition, in the most recent Office Action, the Examiner has rejected claims which he had previously indicated were in condition for allowance. As such, Applicant respectfully requests that the Examiner or the Examiner's supervisor call Applicant's representative, Mr. Narula at (949) 721-2890, before issuing the next office action.

Rejections under 35 U.S.C. § 102(b)

Claims 1-3, 5-19, 21, 23-27, 30-36, 41-43, 48-54 stand rejected under 35 U.S.C. § 102(b) as anticipated by Nakamura (U.S. Patent No. 5,797,363). Applicant respectfully traverses the rejection of these claims.

Independent Claim 1 recites, in part, an internal combustion engine that includes "a control valve positioned within a common hydraulic passage having a first opening and a second opening" and "a bearing cap located near an upper end of the camshaft, the bearing cap configured to cooperate with the cylinder head assembly so as to support the camshaft for rotation and at least a portion of the common hydraulic passage being formed in the bearing cap." In rejecting Claim 1, the Examiner stated that Nakumara discloses "a control valve (See Figure 1 (32)) positioned within a common hydraulic passage having a first opening (See Figure 4, (69))

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and a second opening (See Figure 4 (56)).” *Page 3, lines 16-18 of the Office Action.* However, as noted in the interview, it is clear that this passage is not positioned in the bearing cap 33. *See e.g. Figure 1.* Instead, the Examiner has mistakenly identified the passage given reference number 60 as “being formed in the bearing cap.” *See page 4, lines 7-9 of the Office Action.* Although the passage 60 lies within the bearing cap 33, a control valve is not positioned within this passage. As such, Nakumura does not disclose a common hydraulic passage that is positioned within the bearing cap 33 and the rejection of Claim 1 as anticipated by Nakumura is improper.

Independent Claim 12 recites, in part, an internal combustion engine comprising “a control valve positioned within a common hydraulic passage having a first opening and a second opening” and “a lubrication system and lubrication passages, the lubrication passages including a supply passage that is in communication with the common passage, wherein the supply passage is defined, at least in part, in the cylinder head assembly and a bearing cap that is located near an upper end of the camshaft, the bearing cap configured to cooperate with the cylinder head assembly so as to support the camshaft for rotation.” In rejecting this claim, the Examiner identifies the passage given reference number 60 as the supply passage “defined, at least in part, in the cylinder head assembly and a bearing cap.” *See page 8, lines 11-13 of the Office Action.* As noted during the interview, Nakumura identifies conduits 55, 56 as supplying lubricant to the passage containing the OCV 32. *See e.g., Nakumura, col. 4, lines 1-15 and Figure 1.* These conduits are positioned in the cylinder head and are not defined by the bearing cap 33. *Id.* As such, Nakumura cannot anticipate Claim 12.

In a similar manner, independent Claim 19 recites in part that the “supply passage is defined, at least in part in a bearing cap that is located near an upper end of the camshaft.” As noted above, the supply passages 55, 56 of Nakumura are not defined by the bearing cap 33. For at least this reason, Claim 19 is also in condition for allowance.

Independent Claims 30 and 48 recite, in part, that “the supply passage is defined, at least in part, in the cylinder head assembly and a bearing cap that is located near an upper end of the camshaft, the bearing cap configured to cooperate with the cylinder head assembly so as to support the camshaft for rotation.” Again, as noted above, the supply passages 55, 56 of

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Nakumura are not defined by the bearing cap 33. As such, the rejections of independent Claims 30 and 48 as anticipated by Nakumura are improper.

Claims 2-3, 5-11, 13-19, 21, 23-27, 31-36, 41-43 and 49-54 depend either directly or indirectly on the independent claims discussed above. For at least this reason, these dependent claims are also in condition for allowance.

Rejections under 103(a)

Claims 37-40 and 44-47 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Nakamura. Applicant respectfully traverses the rejection of these claims.

Independent Claim 37 recites, in part, “the first hydraulic passage and the second hydraulic passage not extending below a generally horizontal plane that lies normal to the axis of the camshaft and that contains a central axis that extends through the control valve, wherein the valve is positioned below the generally horizontal plane and the setting section is positioned above the generally horizontal plane.” The Examiner admits that Nakumura does not disclose an internal combustion engine with the above-noted features. Nevertheless, the Examiner states that “[i]t would have been obvious to one having ordinary skill in the art at the time the invention was made to have placed the valves below the horizontal line and the setting section above the horizontal line since it has been held that rearranging parts of an invention involves only routine skill in the art.” However, even assuming that the parts could be rearranged as suggested by the Examiner, the mere fact such a rearrangement is possible, is insufficient to support a finding of obviousness if there is no motivation to make such a rearrangement. *See M.P.E.P. § 2144.04.* The Examiner has not identified any motivation in Nakumura or the prior art for making the proposed rearrangement. In contrast, the Applicant has identified a specific advantage to the claimed arrangement. Specifically, that the claimed arrangement reduces the likelihood that vapors are trapped within the hydraulic passages.

For at least this reason, independent Claim 37 and dependent Claims 38-40 and 44-47 are in condition for allowance.

Claims 55-59 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Nakamura in view of Hiroaki et al. (JP 11-132016).

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Claim 55 recites, in part, an internal combustion engine having a control valve and a cylinder head cover, the “valve portion of the control valve lying within the cylinder head cover” The Examiner admits that Nakumura fails to disclose the control valve in the cylinder head cover. *See page 13, lines 15-17 of the Office Action.* To correct address this lack of teaching in the art, the Examiner states that Hiroaki teaches that it is conventional to have the actuator portion of the control valve extend through the cylinder head cover. *See page 14, lines 3-5 of the Office Action.* However, as noted in the interview, the valve 20 of Hiroaki does not lie within the cylinder head cover. Instead, as shown in Figure 1 of Hiroaki, the valve 32 is positioned outside the cylinder head cover, which is identified by reference number 1.

For at least this reason, independent Claim 55 and dependent Claims 56-59 are in condition for allowance.

CONCLUSION

For the foregoing reasons, it is respectfully submitted that the rejections set forth in the outstanding Office Action are inapplicable to the present claims. Accordingly, early issuance of a Notice of Allowance is most earnestly solicited.

The undersigned has made a good faith effort to respond to all of the rejections in the case and to place the claims in condition for immediate allowance. Nevertheless, if any undeveloped issues remain or if any issues require clarification, the Examiner is respectfully requested to call Applicant's attorney in order to resolve such issue promptly.

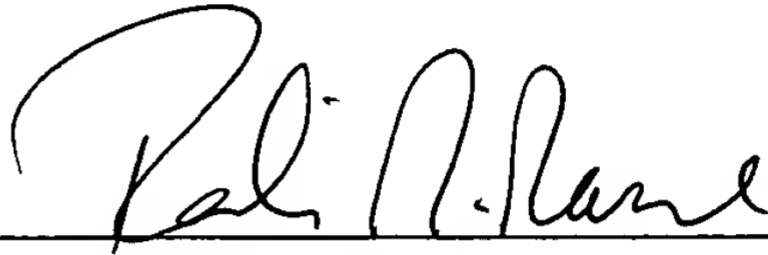
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Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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